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NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 02/22/2006

NIKAIDO, MARMELSTEIN, MURRAY & ORAM LLP
METROPOLITAN SQUARE
655 15TH ST NW
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WASHINGTON, DC 200050501

EXAMINER

LIPMAN, BERNARD

ART UNIT

PAPER NUMBER

1713

DATE MAILED: 02/22/2006

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/885,770	06/30/1997	GIULIO BRINATI	JAP-70453	7819

TITLE OF INVENTION: VDF POLYMERIZATION PROCESS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$0	\$1400	05/22/2006

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

7590 02/22/2006

NIKAIDO, MARMELESTEIN, MURRAY & ORAM LLP
 METROPOLITAN SQUARE
 655 15TH ST NW
 STE 330-G ST LOBBY
 WASHINGTON, DC 200050501

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

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nonprovisional	NO	\$1400	\$0	\$1400	05/22/2006

EXAMINER	ART UNIT	CLASS-SUBCLASS
LIPMAN, BERNARD	1713	526-209000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list
 (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are enclosed:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s):

- ☐ A check in the amount of the fee(s) is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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			ART UNIT	PAPER NUMBER
			1713	
			DATE MAILED: 02/22/2006	

Determination of Patent Term Extension under 35 U.S.C. 154 (b) (application filed after June 7, 1995 but prior to May 29, 2000)

The Patent Term Extension is 0 day(s). Any patent to issue from the above-identified application will include an indication of the 0 day extension on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.

08/885,770

Examiner

Bernard Lipman

Applicant(s)

BRINATI ET AL.

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to papers filed 02 December 2004 and 14 September 2005.
2. ☒ The allowed claim(s) is/are 1 and 3-14.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Richard J. Berman, Esq. on 10 February 2006.

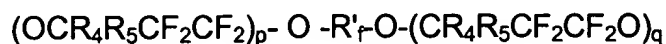
The application has been amended as follows: The Claims are to read as follows:

1. (Previously Amended) VDF polymerization process, optionally modified with small amounts, generally comprised between 0.1 and 10% by moles, of one or more fluorocontaining comonomers, for preparing VDF polymers showing improved levels of white index, carried out in the presence of a microemulsion comprising a (per)fluoropolyether having neutral end groups, or microemulsions of fluoropolyoxyalkylenes having hydrogen containing end groups and/or hydrogen-containing repeating units, or microemulsions of fluoropolyoxyalkylenes having hydrogen-containing end groups and/or hydrogen-containing repeating units and hydrocarbons C₁-C₂₀, of aliphatic, aromatic or mixed type, optionally containing halogens, said fluoropolyethers having number average molecular weight from 400 to 3000, and a surfactant based on perfluoropolyethers with a sodium carboxylate end group, said surfactant having a number molecular weight Mn comprised between 400-600, and having a distribution of molecular weight such that fractions having a number average molecular weight greater than 700 are not present or are present in amount of less than 5% by weight.
2. (Cancelled)
3. (Previously Amended) VDF polymerization process according to claim 1, wherein a microemulsion comprising a perfluoropolyether with neutral end groups is utilized.

4. (Previously Amended) VDF polymerization process according to claim 1, wherein chlorotrifluoroethylene (CTFE), hexafluoropropene (HFP), tetrafluoroethylene (TFE) are utilized as comonomers.
5. (Previously Presented) VDF polymerization process according to claim 4, wherein the amount of modifying comonomer is comprised between 0.5-6% by moles.
6. (Previously Amended) VDF polymerization process according to claim 1, wherein the perfluoropolyethers with neutral end groups, optionally the end groups containing an hydrogen atom, utilized for preparing the microemulsions, comprise as repeating units sequences of one or more oxyfluoroalkylenic units such as $-\text{CF}_2(\text{CF}_2)_z\text{O}-$, wherein z is an integer equal to 1, 2 or 3, $-\text{CR}_4\text{R}_5\text{CF}_2\text{CF}_2\text{O}-$ wherein R_4 and R_5 equal to or different from each other are chosen from H, Cl or perfluoroalkyl from 1 to 4 carbon atoms, $-\text{CF}_2\text{CF}(\text{CF}_3)\text{O}-$, $-\text{CFYO}-$, wherein Y is equal to F or CF_3 .
7. (Previously Presented) VDF polymerization process according to claim 6, wherein the perfluoropolyethers have number average molecular weight comprised between 400 and 3000.
8. (Previously Amended) VDF polymerization process according to claims 6, wherein the perfluoropolyethers comprise as repeating units sequences of the classes:
 - a) $(\text{C}_3\text{F}_6\text{O})_{m'}(\text{CFYO})_{n'}$, wherein the unit $(\text{C}_3\text{F}_6\text{O})$ and (CFYO) are perfluorooxyalkylenic units statistically distributed along the chain; m' and n' are integers such as to give the molecular weight indicated above, and m'/n' is comprised between 5 and 40, when n' is different from 0; Y is equal to F or CF_3 ; n' can be also 0; said units inside the fluoropolyoxyalkylenic chain can optionally be bound among each other by a bond $-\text{O}-\text{R}'_f-\text{O}-$, wherein R'_f has the meaning defined in c);
 - b) $(\text{C}_2\text{F}_4\text{O})_{p'}(\text{CFYO})_{q'}-(\text{C}_3\text{F}_6\text{O})_{t'}$
wherein p' and q' are integers such that p'/q' ranges between 5 and 0.3, preferably 2.7-0.5, and such that the molecular weight is the one indicated above; t' being an integer with the meaning of m' , $\text{Y} = \text{F}$ or CF_3 ; t' can be 0 and $q'/q'+p'+t'$ lower than or equal to 1/10 and the t'/p' ratio is from 0.2 to 6;

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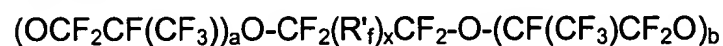
- c) $\text{CR}_4\text{R}_5\text{CF}_2\text{CF}_2\text{O}$ wherein R_4 and R_5 are equal to or different from each other and chosen from H, Cl or perfluoroalkyl, for instance having 1-4 C atoms, the molecular weight being that indicated above, said units inside the fluoropolyoxyalkylenic chain being bound to each other as follows:



wherein R'_f is a fluoroalkylenic group, for instance from 1 to 4 C, p and q are integers from 0 to 200, and $p+q$ is at least 1 and such that the molecular weight is that indicated above,

- d) $\text{CF}(\text{CF}_3)\text{CF}_2\text{O}$

said units being linked each other inside the fluoropolyoxyalkylenic chain as follows:



wherein R'_f has the meaning indicated above, x is 0 or 1, a and b are integers and $a+b$ is at least 1 and such that the molecular weight is that indicated above,

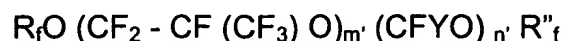
- e) $(\text{C}_2\text{F}_4\text{O})_{a'}(\text{CFYO})_{b'}$

wherein a' and b' are integers such that the molecular weight is inside the indicated range, a'/b' ranges between 5 and 0.3, preferably between 2.7-0.5, Y has the meaning indicated above.

9. (Previously Amended) VDF polymerization process according to claim 1, wherein the neutral end groups of the perfluoropolyethers are perfluoroalkyls from 1 to 3 carbon atoms, $\text{ClCF}_2\text{CF}(\text{CF}_3)-$, $\text{CF}_3\text{CFCICF}_2-$, $\text{ClCF}_2\text{CF}_2-$, ClCF_2- , in the case of microemulsions of fluoropolyoxyalkylenes having hydrogen-containing end groups, these are of the $-\text{CF}_2\text{H}$, $-\text{CF}_2\text{CF}_2\text{H}$, $-\text{CFH}-\text{CF}_3$ type.

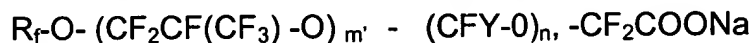
10. (Previously Amended) VDF polymerization process according to claim 1, wherein the perfluoropolyether surfactants have the same repeating units indicated for perfluoropolyethers.

11. (Previously Amended) VDF polymerization process according to claim 1, wherein the perfluoropolyethers have the following general formula:



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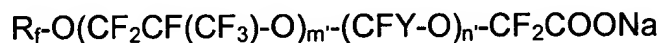
having a random distribution of the perfluorooxyalkylenic units, wherein R_f and R'_f equal to or different from each other are neutral end groups as defined above, m' and n' are integers such as to meet the above requirements of molecular weight, Y has the meaning indicated above; the surfactant based on perfluoropolyether has the following formula:



wherein R_f , m' , n' and Y have the above meaning indicated.

12. (Previously Amended) VDF homopolymers or VDF copolymers modified with amounts comprised between 0.1-10% by moles of one or more fluoro-containing comonomers according to claim 1.

13. (Previously Presented) VDF polymerization process according to claim 1, wherein the surfactant based on perfluoropolyethers has the following formula



wherein R_f is a C1 to C3 perfluoroalkyl group, $ClCF_2CF(CF_3)-$, $CF_3CFCICF_2-$, $ClCF_2CF_2$, $ClCF_2-$; Y=-F, CF_3 ; m' and n' are integers meeting the requirements of the number average molecular weight recited in claim 1.

14. (Previously Presented) The VDF polymerization process according to claim 1 wherein said surfactant has a number average molecular weight M_n comprised between 400-550.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Lipman whose telephone number is 571-272-1105. The examiner can normally be reached on 8-5 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bernard Lipman
Primary Examiner
Art Unit 1713

BL/hs

Organization **TC1700** Bldg./Room **REMPSEN**

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